

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Currently Amended) A susceptor of an approximately round disk shape, having a concave wafer pocket on a front surface thereof for accommodating a wafer, comprising:

a gas supply channel passing through from a side surface or a rear surface of the susceptor to the wafer pocket and having a shape adapted to supply a gas into the wafer pocket as the susceptor rotates; and

a gas discharge channel passing through from the wafer pocket to the side surface or the rear surface of the susceptor and having a shape adapted to discharge the gas present in the wafer pocket as the susceptor rotates.

2. (Cancelled).

3. (Withdrawn) An epitaxial wafer production apparatus comprising:

a chamber having a gas supply vent and a gas discharge vent;

a susceptor of an approximately round disk shape, which is disposed inside the chamber and comprises a concave wafer pocket on the front surface thereof for accommodating a wafer, a gas supply channel passing through from a side surface or a rear surface to the wafer pocket, and

a gas discharge channel passing through from the wafer pocket to the side surface or the rear surface;

support means for supporting the susceptor; and

heating means for heating the susceptor and the wafer inside the chamber.

4. (Withdrawn) The epitaxial wafer production apparatus according to claim 3, comprising a gas supply vent for supplying a carrier gas containing a raw material gas only above the susceptor located inside the chamber.

5. (Withdrawn) An epitaxial wafer production apparatus comprising:

a chamber;

a susceptor disposed inside the chamber and comprising a concave wafer pocket on a front surface thereof for accommodating a wafer;

support means for supporting the susceptor; and

heating means for heating the susceptor and the wafer inside the chamber, wherein the apparatus further comprises:

a gas supply vent for supplying a carrier gas containing a raw material gas to above the susceptor located inside the chamber; and

a heavy gas supply vent for supplying a gas which is heavier than the carrier gas to under the susceptor located inside the chamber.

6. (Withdrawn) A method for producing an epitaxial wafer, comprising the steps of:

placing a wafer into a concave wafer pocket formed on a front surface of a susceptor disposed inside a chamber;

supplying a gas from under the susceptor into the wafer pocket;

discharging a gas present inside the wafer pocket from under the susceptor; and

heating the susceptor and the wafer inside the chamber.
7. (Withdrawn) A method for producing an epitaxial wafer, comprising the steps of:

placing a wafer onto a susceptor disposed inside a chamber;

supplying a carrier gas containing a raw material gas to above the susceptor inside the chamber and supplying a gas heavier than the carrier gas to under the susceptor; and

heating the susceptor and the wafer inside the chamber.
8. (New) A susceptor of an approximately round disk shape, having a concave wafer pocket on a front surface thereof for accommodating a wafer, comprising:

a gas supply channel passing through from a side surface or a rear surface of the susceptor to the wafer pocket and is formed so as to whirl toward a center thereof in a rotating direction of the susceptor; and

a gas discharge channel passing through from the wafer pocket to the side surface or the rear surface of the susceptor and is formed so as to whirl toward an outer side thereof in the rotating direction of the susceptor.

9. (New) A susceptor of an approximately round disk shape, having a concave wafer pocket on a front surface thereof for accommodating a wafer, comprising a gas supply channel and a gas discharge channel,

the gas supply channel including:

a first gas inlet port formed on a side surface or a rear surface of the susceptor; and

a first gas outlet port formed to face the wafer pocket,

the first gas inlet port and the first gas outlet port being in communication with each other, wherein

the first gas outlet port is positioned at a center side of the susceptor relative to the first gas inlet port; and

the first gas inlet port is positioned forward from the first gas outlet port with respect to a rotating direction of the susceptor,

the gas discharge channel including:

a second gas outlet port formed on a side surface or a rear surface of the susceptor; and

a second gas inlet port formed to face the wafer pocket,

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the second gas outlet port and the second gas inlet port being in communication with each other, wherein

the second gas inlet port is positioned at a center side of the susceptor relative to the second gas outlet port; and

the second gas inlet port is positioned forward from the second gas outlet port with respect to the rotating direction of the susceptor.